

ABSTRACT

*INS.* *AI* ~~1~~

A data transmission system which optimizes transfer and updates of information between systems by providing difference information between the systems is disclosed. Information transfer can occur one way (broadcast) or two-way (sync). In a first aspect, the system includes a differencing transmitter transmitting at least one set of difference transactions and a differencing receiver receiving said at least one set of difference transactions. The differencing transmitter of the data transmission system may comprise a difference source interface, a copy of a previous state of said difference source, and a difference transaction generator. The differencing receiver of the data transmission system comprises a difference destination interface, a copy of a previous state of said difference destination, and a destination data constructor. In a further embodiment, the data transmission system is coupled to a network. The system includes a differencing transmitter transmitting at least one set of change transactions reflecting changes to a data source to the network, and a plurality of differencing receivers coupled to the network receiving said at least one set of change transactions from the network.

A method for synchronizing at least a first file and a second file resident on a first and a second systems, respectively, is provided. The method comprises the steps of: determining difference data resulting from changes to a first file on the first system; transmitting the difference information to a second system; applying the difference information to generate change data for the second file; and updating the second file on the second system with the difference data.